BY ORDER OF THE COMMANDER
HEADQUARTERS 377TH AIR BASE WING (AFMC)
KIRTLAND AIR FORCE BASE,
NEW MEXICO 87117-5606

KAFB INSTRUCTION 91-204

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Safety

CONFINED SPACE PROGRAM
(CORRECTED COPY)

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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OPR: 377 ABW/SEG (TSgt Jeffrey Harris) Certified by: 377 ABW/SEG (E. Wayne Ragan)
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This instruction implements Air Force Policy Directive 91-2, *Safety Program*. This instruction provides information specific to the implementation of AFOSH Standard 91-25, *Confined Spaces*, on Kirtland Air Force Base. This instruction applies to all 377th Air Base Wing, associates, and to contractor operations on Kirtland Air Force Base. It establishes minimum responsibilities for commanders, functional managers, supervisors, confined space entrants, and wing staff agencies. It provides further guidance for program implementation for routine and non-routine entries using a Master Entry Permit (MEP).

SUMMARY OF REVISIONS:

This revision adds provision to bring the current instruction into compliance with AFOSH Standard 91-25.

1. References:

1.1. AFOSH Standard 91-25, *Confined Spaces*

1.2. 29 CFR 1910.146, *Permit-Required Confined Spaces*

2. Responsibilities: AFOSH STD 91-25 addresses specific responsibilities from the Air Staff down through wing-level agencies and individuals. Responsibilities primarily entail establishing a comprehensive program that identifies, evaluates, and classifies permit-required confined spaces, and provides personnel with the training, procedures, equipment, and support to safely work in confined space environment.

2.1. 377 ABW/CC: The commander is responsible for authorizing entry into permit-required confined spaces that contain an immediately dangerous to life and health (IDLH) atmosphere when emergency/contingency circumstances exist. The commander, after consultation with Ground Safety (377 ABW/SEG), Fire Protection Division (377 CEG/CEF), and Bioenvironmental Engineering (377 AMDS/SGPB) personnel, will authorize entry if warranted.

2.2. 377 ABW/SEG: As the focal point for the wing's confined space entry program, Ground Safety is responsible for implementing the elements listed in paragraph 2.7 of AFOSH Standard 91-25.

2.3. 377 CEG/CEF: As the focal point for the emergency response and rescue aspects of the confined space entry program, the Fire Protection Division is responsible for implementing the elements listed in paragraph 2.8 of AFOSH Standard 91-25.

2.4. 377 AMDS/SGPB: As the focal point for occupational health and respiratory aspects of the confined space entry program, Bioenvironmental Engineering is responsible for implementing the elements listed in paragraph 2.9 of AFOSH Standard 91-25.

2.5. Confined Space Program Team (CSPT): The primary purpose of the CSPT is to assist the functional managers and commanders to develop and administer organizational confined space programs. The membership of the CSPT includes representatives of SEG (lead organization), CEF, SGPB, and the functional managers, commanders, or the designated representatives of units that exercise control over identified permit-required confined spaces. In addition to the duties stated in AFOSH Standard 91-25, para 2.10., the CSPT will:

2.5.1. Develop a numbering system and database of confined spaces to be used in identification, evaluation, classification, and emergency responses.

2.5.2. Meet on a quarterly basis, and when required, to resolve confined space issues. Results of the quarterly meeting will be available for review at the Commander's AFOSH Council.

2.5.3. Review the installation confined space program at least annually.

2.6. Unit Commanders and Functional Managers: In addition to the duties stated in AFOSH Standard 91-25, para 2.12, unit commanders and functional managers will:

2.6.1. Ensure a written confined space entry program is developed and implemented within the unit and each individual work center making entries into permit-required confined spaces (PRCS). Program elements are outlined in Chapter 3 of this instruction.

2.6.2. Designate, in writing, a representative to the CSPT for management of confined spaces within the organization's control. The representative will assist in the development of the Master Entry Permits (MEP). This person will maintain a book for their confined space program which will contain the following:

- Copy of AFOSH Standard 91-25.
- Copy of this instruction.
- Current list of locations of confined spaces.
- Copy of appointment letter of CSPT representative.
- Copy of master entry plan and/or issued entry permits.

2.6.3. Provide a list of all confined space (permit-required and non-permit), to 377 ABW/SEG, 377 CEG/CEF, and 377 AMDS/SGPB. Update the listing at least annually reflecting any changes in the status of the confined spaces.

2.7. Entry (On-Site) Supervisor. In addition to the duties stated in AFOSH Standard 91-25, para 2.13, the entry supervisor will:

2.7.1. Recognize that they have been vested by their commander with specific duties, responsibilities, and authority to accomplish confined space entry operations that comply with Air Force guidance and ensure employees' safety and health.

2.7.2. Exercise overall responsibility and control of the entry and evaluate conditions in and around the confined space to determine that all necessary precautions have been taken to protect the entrants.

2.8. Confined Space Entrants. In addition to the duties stated in AFOSH Standard 91-25, para 2.14, workers entering confined spaces will:

2.8.1. Have the authority to exit the confined space at the first indication of a hazardous condition not allowed for in Section 8 of the AF Form 1024, **Confined Spaces Entry Permit;** an unexpected hazard, indication of a toxic reaction (i.e., unusual conduct by the entrants) or, if a situation occurs inside the space that could pose a hazard to the entrants.

2.8.2. Refuse to perform an entry into a PRCS when that individual does not fully understand the PRCS hazard recognition, use of appropriate PPE and equipment, communication methods with the attendant, or self-rescue techniques.

2.9. Confined Space Attendants. In addition to the duties stated in AFOSH Standard 91-25, para 2.15, attendants will not allow any rescue attempt by unauthorized or unqualified persons under any circumstances.

2.10. Associate Units on Kirtland. Associate units on Kirtland AFB with confined spaces under their operational control will have a representative on the installation CSPT. Annually, associates will provide 377 ABW/SEG a current list of all confined spaces with a permit-required and non-permit-required classification prior to their annual safety inspection. The requirements of paragraph 2.6.2 apply as well.

3. General Requirements:

3.1. Essential elements of a Unit-Level Confined Space Program. AFOSH Standard 91-25, paragraph 2.12.1, requires commanders and functional managers who control or have employees who enter confined spaces to ensure a written confined space program is developed. The unit's program must address 10 elements (refer to para 3.3.) mandated in Federal and Air Force requirements. Organizations will provide a copy of their written confined space program to 377 ABW/SEG for inclusion in the overall installation program.

3.2. Initial Workplace Survey and Evaluation of Confined Spaces. All organizations will survey workplaces and facilities within their area of responsibility to identify potential confined spaces. A survey containing criteria to test for confined spaces (Test #1) and permit-required confined spaces (Test #2) is provided as an easy method to complete the initial workplace survey and assess the existence of confined spaces (see **attachment 1**). If the survey and Test #1 indicate the unit does not have confined spaces, the unit commander or designated representative will forward a memorandum indicating the negative results to 377 ABW/SEG. Commanders should be constantly vigilant that circumstances can change thereby creating a confined space. If a confined space is created or results in a change of conditions, then additional testing and evaluation will be required by the CSPT.

3.3. Workplace Written Permit Required Confined Space (PRCS) Program. Commanders will ensure a written confined space program is developed for the unit and each individual work center

requiring entry into permit-required confined spaces. As a minimum, the written program will contain the following 10 elements: hazard identification, testing and monitoring, hazard control, information and training, permit system, emergency procedures, specialized equipment, outside contractors, employee designation, program review.

3.3.1. Identification, Hazard Evaluation, and Classification of Confined Spaces.

3.3.1.1. Develop roster of confined spaces determined from the Initial Survey (para 3.2).

3.3.1.2. Document all identified confined spaces using **attachment 1** (or equivalent unit-developed tool) and forward the roster to 377 ABW/SEG.

3.3.1.3. A non-permit confined space contains no hazardous atmosphere and the entrants will not perform any work inside that confined space that could potentially create a hazardous atmosphere. Additionally, the space does not have a potential for engulfment and is not configured in a way that would cause entrapment or asphyxiation. The use of special protective equipment and modified work procedures are not required by this standard but may be required by other Air Force directives; i.e., AFOSH Standard 91-31, *Personal Protective Equipment*. Entry permits and signs are not required, however, circumstances may change and permits and signs may become required.

3.3.1.4. Hazard Evaluation and Classification of Permit-Required Confined Spaces. Determine (from Test #2) if the confined spaces are permit-required spaces. This evaluation and classification will be done by the CSPT. The determination of the PRCS must be done by the CSPT. If permit-required confined spaces are identified, a formal evaluation must capture essential characteristics of the permit space.

3.3.2. Control of Unauthorized Entry. Inform employees of the location of the confined spaces and the hazards they pose. The commander will post signs or use other effective means such as locks or special covers requiring special tools to remove. Work site supervisors will inform employees of the hazard.

3.3.2.1. Posting Signs. Workers and other employees that could inadvertently enter Permit-Required Confined Spaces will be informed of the existence, location, and the danger of the permit space by posting danger signs. Use a sign stating "DANGER - PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER" or a commercially available equivalent that conforms to the specifications and design established in AFOSH Standard 91-44, *Safety Color Coding, Labeling, and Marking for Piping Systems*, and AFOSH Standard 91-45, *Hazardous Energy Control and Mishap Prevention Signs and Tags*.

3.3.2.2. Permit-Required Confined Spaces where personnel cannot inadvertently enter, such as those protected by heavy manhole covers which require tools to remove, need not be posted. All personnel who may require access to these areas, however must be thoroughly briefed and trained that these spaces are designated as permit-required confined spaces.

3.3.3. Establish an Entry-Permit System.

3.3.3.1. If employees have to enter permit-required confined spaces, a comprehensive written system for preparing, issuing, implementing, and canceling an entry permit must be developed by the functional area. AF Form 1024, **Confined Space Entry Permit**, will be used for all permit-required confined spaces.

3.3.3.2. Entries made into permit-spaces on a routine basis by Air Force personnel may be controlled through a MEP. See **attachment 2** for an overview of that program. All other entries into a PRCS must complete the required entry permit (AF Form 1024) each time.

3.3.4. Designating Employees. Personnel involved in Permit-Space entries (entry supervisors, entrants, attendants, rescuers) will be specifically designated by name on the permit.

3.3.5. Employee Information and Training. These topics will be communicated to personnel involved in confined space entry: hazard recognition and control methods, atmospheric testing equipment and methods, placement of ventilation equipment, lockout/tagout (LO/TO), line isolation, breaking and blanking, communication equipment and techniques, Personal Protective Equipment (PPE), barricades, methods of completing the entry permit.

3.3.6. Approved Equipment. Refer to AFOSH Standard 91-25, para 3.6. for equipment used to support confined space entry.

3.3.7. Testing and Monitoring of Confined Spaces. Atmospheric testing is required for two distinct purposes: evaluation of the hazards of the permit space and verification that acceptable entry conditions for entry exist. Test #2 identifies examples.

3.3.7.1. 377 AMDS/SGPB will accomplish initial evaluation testing, also called classification testing, of confined spaces.

3.3.7.2. Verification Testing. The atmosphere of a permit-required space that may contain a hazardous atmosphere will be tested by the entry supervisor for residues of all contaminants identified by evaluation testing. Specified equipment will be used to determine residual concentrations at the time of testing and entry are within the range of acceptable entry conditions. Results of testing (i.e., actual concentration, etc.) will be recorded by the entry supervisor on the permit in the space provided adjacent to the stipulated acceptable entry condition.

3.3.7.2.1. Accomplish verification testing prior to entry into permit-required confined spaces. Testing will be done by a qualified person who is trained and certified according to guidance in AFOSH Standard 91-25, para 5.6.

3.3.7.2.2. Duration of testing. Each atmospheric parameter of measurement values will be made for at least the minimum response time of the test instrument specified by the manufacturer.

3.3.7.2.3. Testing stratified atmospheres. When monitoring for entries involving a descent into atmospheres that may be stratified, test the atmospheric envelope at a distance of approximately 4 feet in the direction of travel and to each side. If a sampling probe is used, slow the entrant's rate of progress to accommodate the sampling speed and detector response.

3.3.7.2.4. Do not introduce mechanical ventilation into the confined space prior to performing verification testing.

3.3.7.2.5. Order of testing. Perform a test for oxygen first because most combustible gas meters are oxygen dependent and will not provide reliable readings in an oxygen-deficient atmosphere. Next, test for combustible gases because the threat of fire or explosion is more immediate and life threatening, in most cases, than exposure to toxic gases and vapors. If tests for toxic gases and vapors are necessary, they are performed last. (Refer-

ence Table 3.1, AFOSH Standard 91-25)

3.3.8. Coordination with Employees of Other Organizations. Determine if employees of another organization, to include contractors, will have to enter the confined space. If so, the unit will have to develop a procedure to assure the other organization abides by confined space entry standards. Chapter 7 addresses entries made by other organizations or contractors and the obligation the Air Force has to contractors entering government controlled confined spaces.

3.3.9. Emergency Response Procedures. Develop and implement unit-level procedures or preventing unauthorized personnel from attempting rescue; summoning rescue and emergency services. Organizational rescue teams must comply with AFOSH Standard 91-25, Chapters 4 and 5, and be approved by the CSPT.

3.4. Annual Program Review. The organization's confined space program entry program will be evaluated by 377 ABW/SEG annually and may be conducted in conjunction with baseline industrial hygiene workplace surveys.

3.4.1. Units using MEPs will have the CSPT review their program annually or any time changes are made to the MEP.

3.4.2. The unit commander will review and certify the unit's confined space program initially and annually. This review will contain a signature section with the following:

3.4.2.1. Unit Commander: Review, approve, and sign.

3.4.2.2. Units with full-time Safety Personnel: Review and sign.

3.4.2.3. 377 AMDS/SGPB (Bioenvironmental Engineering): Concur/non-concur and sign.

3.4.2.4. 377 CEG/CEF (Fire Department Division): Concur/non-concur and sign.

3.4.2.5. 377 ABW/SEG (Ground Safety): Concur/non-concur and sign. The Base Safety Office will be the last to sign the unit program.

4. Emergency and Rescue Procedures:

4.1. Policy: Air Force Form 1024, **PRCS Entry Permit**, or the organizational MEP will include emergency and rescue procedures consistent with the nature of each known operation which requires entry into a permit-required confined space. The entry supervisor will coordinate emergency rescue procedures with 377 CEG/CEF, 377 ABW/SEG, and 377 AMDS/SGPB for all non-routine entries into a permit-required confined space. This coordination must be established by the entry supervisor at least 24 hours prior to entry except for emergencies. The entry supervisor will contact the fire department Fire Alarm Communications Center (FACC) prior to entry into a permit-required confined space and maintain communication with FACC.

4.2. Emergency PRCS Entry. During normal duty hours, notify all required agencies for coordination. After duty hours, notify the FACC (377 CEG/CEFT) at 846-8069 and 377 ABW/SEG. SEG personnel can be contacted after duty hours and weekends through the 377 ABW Command Post at 846-3777.

4.3. Rescue Procedures. When performing rescue operations, ensure all operations are conducted in compliance with paragraphs 4.1.1.- 4.1.3.3. in AFOSH Standard 91-25.

5. Training:

5.1. General Policy. Every aspect of PRCS entry requires employee training. To ensure personnel are vigilant and well informed prior to entering a permit-required confined space, each organization will develop a structured and effective training program that establishes safe work practices and techniques for workers entering PRCS. Because of the wide variety of PRCS hazards, there is no such thing as a one-size-fits-all confined space training program. Regardless of the characteristics, size, or type of the confined space, there are some universal elements supervisors must include in their employees' training. Training objectives in unit lesson plans will incorporate the elements of AFOSH Standard 91-25, Chapter 5, and focus on specific local hazards to be encountered by personnel. Document all training as required by AFOSH Standard 91-25, Chapter 5. Units may use commercial Confined Space Training vendors.

6. Specific PRCS Entry Requirements:

6.1. Policy. Kirtland AFB complies with essential regulatory requirements contained in 29 CFR 1910.146 and AFOSH Standard 91-25. Portions of non-regulatory consensus standards, such as American National Standards Institute (ANSI) Z117.1, Safety Requirements for Confined Spaces, National Fire Protection Association (NFPA) standards, and applicable sections of existing AFOSH standards are incorporated into this instruction by inference.

6.2. All personnel will assume confined spaces are permit-required until proven otherwise by means of testing and/or inspection.

7. Coordinating Entry of Contractors or Other Organizations:

7.1. Policy. All confined spaces on Kirtland AFB are ultimately managed, or "owned" by an Air Force unit, even though personnel from the owning unit do not enter the confined space. All confined spaces are considered "Permit-Required" until formal classification has been performed by the CSPT. Owners of confined spaces are not obligated to provide training, equipment, permits, rescue services, or any other confined space program element. Owners of confined spaces are obligated to comply with paragraph 7.2. of this instruction when other government agencies or contractor personnel enter the confined spaces under control of the confined space owner. In addition to the requirements listed in AFOSH Standard 91-25, Chapter 7, the units are responsible for the following:

7.2. General. When an organization arranges to have another government agency, unit, or contractor perform work that involves entry into a permit-required confined space, the requesting organization owning the confined space will:

7.2.1. Notify the agency or contractors that tasks are to be performed in a permit-required confined space. The owner will ensure this notification is included in the AF Form 332, **Work Request**, statement of work (SOW), or their equivalent contracting tool.

7.2.2. Review emergency rescue responsibilities for government agencies to ensure KAFB emergency response procedures are used. Ensure that the fire chief coordinates on the contract and either approves or disapproves the use of the installation's fire department rescue team.

7.2.3. Brief the agency or contractor on the contents of the space and hazards that make the space permit-required. Additionally, identify all abatement actions already in effect, any known actions required to be taken by the user and/or contractor before entry. The contracting officer will brief the contractors through the SOW, and again at the pre-con meeting.

7.2.4. When both the agency unit and contractor personnel will be working in permit-required confined space together or simultaneously, coordinate entry operations and procedures with the contractor and agree upon the permit space entry system to be used.

7.2.5. Advise the contractor that they are responsible for the safety of their personnel and will use the contractor entry program and procedures if working independently in a space; if both agency and contractors are working together, this instruction and AFOSH Standard 91-25 requirements will also apply.

7.2.6. Hold a debrief session with the agency unit and/or contractor at the end of the entry operations to develop lessons learned from any problems or hazards encountered or created during the entry operations.

7.2.7. Each confined space entry permit team will carry a copy of the permit at each applicable site and have it available for review upon request.

SYLVIA M. MCBERRY
Chief of Safety

Attachment 1

UNIT SURVEY OF WORKPLACE CONFINED SPACES

A1.1. Background : Mishaps in confined spaces do not happen often, but when they do, they are usually fatal. Confined spaces are found in so many different industrial operations that it is virtually impossible to describe them all. Confined spaces vary widely both in their physical characteristics and in the reasons for which they are entered. Also, the type and magnitude of the hazards posed to entrants also varies from space to space. This guide will help you determine if you have confined spaces and if those spaces contain hazards that require specific procedures prior to allowing workers to enter.

A1.2. Examples of Confined Spaces : Tanks, vessels, boilers, furnaces, chambers, pipes, sewers, silos, storage bins, hoppers, vaults, and pits more than four feet deep are examples of spaces that, coupled with a limited or restricted means of entry, may be considered a confined space. Use Test #1 (**attachment 3)** of this survey to determine if you have a work area that is a confined space. Remember that having a confined space in your work area does not mean your workers are in any danger or that you have any difficult program requirements to implement. Confined spaces are a safety issue when they contain hazards to workers that enter them.

NOTE:

If Test #1 indicates the work area is a confined space it is essential to conduct another, even more important, test. Test #2 (attachment 4) of this survey will determine if your confined spaces contain hazards that would classify them as permit-required as confined spaces as PRCS.

A1.3. Permit Required Confined Spaces : PRCS are hazardous to enter unless special precautions are taken. A "YES" answer to ANY of questions 1-4 in Test #2 confirms that your space is PRCS. Inform your employees of the locations of these spaces and the hazards they pose, and institute measures to prevent unauthorized entry. Entry into these spaces will be governed by a written workplace program that includes these critical elements:

1. Hazard Identification
2. Hazard Control
3. Permit System
4. Specialized Equipment
5. Employee Designation
6. Testing and Monitoring
7. Information and Training
8. Emergency Procedures
9. Outside Contractors
10. Program Review

A1.4. Developing Master Entry Plan (MEP). Recurring routine entries into PRCS are permitted by use of a MEP. Several Kirtland AFB units, including the 377th Communications Squadron and 377th Civil Engineer Group must develop MEPs. It is a violation of federal law for workers to enter PRCS without an approved plan. Contact the CSPT about confined space issues or for assistance in setting up your unit level program. Your CSPT contacts are:

Bioenvironmental Health	377 AMDS/SGPB	846-4259
Fire and Emergency Services	377 CEG/CEF	846-8220
Base Safety	377 ABW/SEG	846-4227

Attachment 2

MASTER ENTRY PLAN

A2.1. MASTER ENTRY PLAN (MEP) Organizations that routinely enter permit-required spaces having the same conditions and entry requirements may develop a MEP. The MEP saves time by eliminating the need to coordinate every entry permit (AF Form 1024, **Confined Spaces Entry Permit**) through Safety, Bioenvironmental Engineering, and Fire Department prior to entry. The MEP, as part of the unit's overall written confined space program, authorizes commanders, and functional managers to designate entry supervisors to issue entry permits (AF Form 1024). For an MEP to be valid, it must be approved and signed by 377 ABW/SEG, 377 CEG/CEF, and 377 AMDS/SGPB. Approved MEPs are maintained by the entry supervisor. The MEP is valid for one year from the date of approval. The Confined Space Program Team (CSPT) will review the status of the organizational MEP annually.

NOTE:

Additional guidance can be obtained at the Occupational Safety and Health Administrator's (OSHA) confined space advisor website at http://www.osha.gov.

A2.2. THE ORGANIZATIONAL MEP (MINIMUM ELEMENTS)

A2.2.1. Describe the acceptable entry conditions, including acceptable atmospheric conditions, under which permits may be issued.

A2.2.2. Designate as many entry supervisors as needed for the organization.

A2.2.3. Identify the types and locations of spaces to be entered and the types of tasks or operations to be performed.

A2.2.4. List either by reference or direct statement in the MEP the procedures to be used for

entry (e.g. shop operating instructions [OI] that cover specific tasks).

A2.2.5. Account for around-the-clock operations when appropriate.

A2.2.6. List PPE, monitoring and rescue equipment, and conditions under which it will be used.

A2.2.7. Designate frequency and type of atmospheric monitoring.

A2.2.8. List other controls required (e.g., lockout and [or] tagout, ventilation).

A2.2.9. List chemicals and quantities authorized for use. List expected exposure levels based on air sampling results.

A2.2.10. List conditions under which the space may be reclassified as described in paragraph 6.4.11.

A2.2.11. Provide procedures for amending the MEP.

A2.2.12. Require verification of the condition of all monitoring equipment and PPE.

A2.2.13. Be maintained by the entry supervisor.

A2.2.14. Include provisions for entry during potential emergency situations.

A2.2.15. Establish emergency rescue procedures for each permit-required confined space.

A2.2.16. Establish communication procedures and identify communication equipment to be

used during entries.

A2.2.17. Description of the acceptable entry conditions, including acceptable atmospheric conditions under which entry permit may be issued.

Attachment 3

TEST # 1 - DETERMINE IF THE SPACE IS A CONFINED SPACE

IDENTIFY THE SPACE AND ITS OWNER

SITE NOMENCLATURE:

SITE LOCATION:

ORGANIZATION: (SQ/OFFICE SYMBOL)

POC: (Facility Manager) Phone:

	YES	NO
1. Is the space large enough and configured that an employee can bodily enter and perform assigned work? *If yes, answer question 3.*		
2. Does the space have limited or restricted means for entry or exit? Limited and restricted mean any space where an occupant must crawl, climb, twist, be constrained in a narrow opening, follow a lengthy path or otherwise exert unusual effort to enter or leave or where the entrance may become sealed or secured against opening from the inside. *If yes, answer question 4.*		
3. The space is NOT designed for continuous employee occupancy?		

YES answers to all three questions indicates the space being evaluated is a confined space. Use this survey to identify and evaluate your organization's confined spaces. Provide a list of all the spaces that meet this test criteria to the Confined Space Program Team (377 ABW/SEG) for further evaluation. A **NO** answer to any of the three questions indicates that the space is not a confined space; however, circumstances may change. Consult Chapter 3 for additional information.

CHARACTERISTICS OF THE SPACE

MODE OF ACCESS: SIZE OF SPACE: PORTAL SIZE AND SHAPE:

Can work be done without entering the confined space?

Purpose of entry?

WHO WILL ENTER THE SPACE?	FREQUENCY OF ENTRY	ROUTINE/NON-ROUTINE
AF personnel from owning unit		
Civilian personnel from owning unit		
Contractor personnel		

Attachment 4

TEST #2 - DETERMINE IF THE CONFINED SPACE IS PERMIT REQUIRED

PART A. Does the confined space contain or have the potential to contain a hazardous atmosphere? Atmospheric hazards include but are not limited to: Check all that apply

1. Flammable or explosive gases or vapors.

2. Oxygen deficiency (below 19.5%) or oxygen enriched (at or above 23.5%)

3. Airborne combustible dust (at or exceeds its (LFL) or obscuring vision to a distance of 5 feet or less).

4. Toxic air contaminates (concentration of any substance for which the permissible exposure limit (PEL) exceeds Occupational Safety and Health Administration (OSHA) or Air Force limits).

5. Does the nature of operations conducted within the space have the potential to produce the conditions listed above?

6. Circle the following types of work that may occur in the confined space

HOT WORK: welding cutting brazing soldering

APPLICATION OF: paints epoxies solvents preservatives

Sludge removal abrasive blasting scraping/chipping other

7. Is the space exposed to hazards from the external environment, such as proximity to liquid oxygen (LOX) Operations, fuels storage areas, sewer and waste-water treatment processes, and underground disposal sites? YES NO

8. List last known contents of the space:

YES NO

PART B. Does the confined space contain any physical hazard?

1. Moving mechanical equipment
   Energized electrical conductors
   Ionizing radiation
   Thermal conditions/stress (heat/cold)
   Contact with Corrosive Substances

2. Any material that has the potential for engulfing or trapping an entrant.

3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section.

4. Presence of slippery surfaces, deteriorated permanently-installed ladders, etc.

5. Fixtures, devices, or equipment in the space which may create or contribute to hazardous conditions including piping systems, conduits, ducts, machinery, pressurized lines, etc.

PART C. Does the confined space contain any other recognized serious safety or health hazards not listed in Parts A or B?